

ABSTRACT

A system for detecting symptoms of hypoglycemia in a diabetic individual.

The system comprises a temperature sensing system, a conductance sensing
5 system, a trending system, a threshold system, and an alarm system. The
temperature sensing system produces a temperature signal representative of a skin
temperature of the diabetic individual. The conductance sensing system produces a
conductance signal representative of a level of perspiration of the diabetic individual.

The trending system produces a slope estimate representative of a rate of change of
10 the skin temperature over a predetermined interval in response to the temperature
signal. The threshold system produces a slope threshold representative of a
hypoglycemic decline in skin temperature observed over the predetermined interval in
response to the conductance signal and to the temperature signal. The alarm system
produces an indication of the presence of hypoglycemic symptoms in response to the
15 slope estimate and the slope threshold.